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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,089	08/14/2001	Tam Wee Sin	10961-0003	8906
20583	7590	06/09/2006	EXAMINER PHAN, TRI H	
JONES DAY 222 EAST 41ST ST NEW YORK, NY 10017			ART UNIT 2616	PAPER NUMBER

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/929,089

Applicant(s)

SIN ET AL.

Examiner

Tri H. Phan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) 13-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 36 is/are allowed.
- 6) ☐ Claim(s) 1-5, 8, 11 and 35 is/are rejected.
- 7) ☐ Claim(s) 6, 7, 9, 10 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment/Arguments

1. This Office Action is in response to the Response/Amendment filed on February 27th, 2006. Claims 13-34 are now canceled and new claims 35-36 are added. Claims 1-12, 35, and 36 are now pending in the application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the audio converter (see claims 6-12) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the

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drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: The disclosure for "Figure 1" is missing in the "Detailed Description".

Appropriate correction is required.

Claim Objections

5. Claim 8 is objected to because of the following informalities:

In claim 8, line 2, the word "the" in front of the term "non-overlapped audio format" should be correct to -- a -- for clarity. Appropriate correction is required.

Double Patenting

6. Claim 35 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 2 (see claim 1 and 2). When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper

after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5, 8, 11 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Schuster et al.** (U.S.6,175,871; hereinafter refer as '**Schuster**') in view of **Qarni et al.** (U.S.6,438,105; hereinafter refer as '**Qarni**').

- In regard to claim 1, **Schuster** discloses, a system and method for audio transmission over a network (For example see figures 1-2; col.1, lines 17-19) *comprising setting audio frames in packets* (for example see figure 3; wherein the telephone call signal is converted into frames, e.g. "*audio frames*", and then into packets for transmitting over the transporting network as disclosed in figures 1-2; col. 5, lines 4-22; col. 7, line 55 through col. 8, line 3; col. 8, lines 51-52); *and overlapping the audio frames by at least one for each packet* (for example see figure 4; wherein redundant packet contains the current frame and previous frames, e.g. "*the overlapping audio frames*", as disclosed in col. 14, lines 21-40). **Schuster** does disclose the sender or processing hub (see figure 2; col. 6, lines 62-67; col. 7, lines 14-18) converting and packetizing

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real time media into redundancy packets as disclosed in col. 3, lines 50-53; col. 5, lines 4-9; for transmitting over the transporting network disclosed in col. 6, lines 11-12; through the use of ‘RTP’ or other transport protocols for transmitting redundancy packets over the transporting network, i.e. Internet, disclosed in figure 3; col. 9, lines 14-20; but fails to explicitly disclosed about the “UDP” is the using protocol in transporting network. However, such implementation is known in the art.

For example, **Qarni** discloses the system and method for transmitting redundant “UDP” packets (for example see figures 6-7) over Internet through the use of the UDP protocol software stack or module implementing in the gateway (for example see figure 1; col. 4, lines 17-20, 31-35).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Qarni**, by implementing the UDPX protocol stack in the gateway into the **Schuster**’s transport protocol of the processing hub, with the motivation being to improve the ability for transporting real time media with reliability and efficiency over high speed data network as disclosed in **Qarni**: col. 5, lines 6-9, 21-24.

- Regarding claims 2-3 and 35, **Schuster** discloses, a system and method for audio transmission over a network (For example see figures 1-2; col.1, lines 17-19) *comprising setting audio frames in packets* (for example see figure 3; wherein the telephone call signal is converted into frames, e.g. “audio frames”, and then into packets for transmitting over the transporting network as disclosed in figures 1-2; col. 5, lines 4-22; col. 7, line 55 through col. 8, line 3; col. 8,

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lines 51-52); *and overlapping the audio frames by at least one for each packet* (for example see figure 4; wherein redundant packet contains the current frame and previous frames, e.g. “*the overlapping audio frames*”, as disclosed in col. 14, lines 21-40); *wherein there are two audio frames and one overlapped audio frames for each packet* or *two audio frames and two overlapped audio frames for each UDP packet* (for example see figure 4; wherein the number of redundant frames in the packet, e.g. “*overlapped audio frames*”, is depending on the Redundancy variable as disclosed in col. 14, lines 21-25; thus, it is obvious the setting number of frames and redundant frames in the packet, e.g. Redundancy variable, is system engineering choices for fixing or varying). **Schuster** does disclose the sender or processing hub (see figure 2; col. 6, lines 62-67; col. 7, lines 14-18) converting and packetizing real time media into redundancy packets as disclosed in col. 3, lines 50-53; col. 5, lines 4-9; for transmitting over the transporting network disclosed in col. 6, lines 11-12; through the use of ‘RTP’ or other transport protocols for transmitting redundancy packets over the transporting network, i.e. Internet, disclosed in figure 3; col. 9, lines 14-20; but fails to explicitly disclosed about the “*UDP*” is the using protocol in transporting network. However, such implementation is known in the art.

For example, **Qarni** discloses the system and method for transmitting redundant “*UDP*” packets (for example see figures 6-7) over Internet through the use of the UDP protocol software stack or module implementing in the gateway (for example see figure 1; col. 4, lines 17-20, 31-35).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Qarni**, by implementing the UDPX protocol stack in the gateway into the **Schuster**’s transport protocol of the processing

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hub, with the motivation being to improve the ability for transporting real time media with reliability and efficiency over high speed data network as disclosed in **Qarni**: col. 5, lines 6-9, 21-24.

- In regard to claim 4, **Schuster** further discloses, *wherein the audio frames are overlapped in response to a detection of high packet loss* (for example see col. 8, lines 56-64; col. 14, lines 21-40; wherein the telephone call signal is converted into frames, e.g. “*audio frames*”, and then into packets for transmitting over the transporting network as disclosed in figures 1-2; col. 5, lines 4-22; col. 7, line 55 through col. 8, line 3; col. 8, lines 51-52).

- Regarding claim 5, **Schuster** further discloses, *wherein the extent of overlap is selected based on the extent of the packet loss* (for example see col. 4, lines 5-9; where the dynamic network characteristics are varying by packet loss and delay as disclosed in col. 2, lines 40-43; and wherein the Redundancy variable determines the number of redundant frames in the packet based on the frames lost during transportation, e.g. “*extent of overlap is selected based on the extent of the packet loss*”).

- In regard to claims 8 and 11, **Schuster** further discloses, *wherein the transmission from an originating gateway is in a non-overlapped audio format* (for example see figure 2; wherein frames 85, e.g. “*non-overlapped audio format*”, are encoded by the encoder 80 of the sender, e.g. “*originating gateway*”, as disclosed in col. 7, line 64 through col. 8, line 3) *and is to an originating audio converter to convert the transmission to overlapped format* (for example see

figure 2; wherein the packetizer 90, e.g. “*originating audio converter*”, packets the frames 85 into data packets 95 with redundant frames for transporting over the network, e.g. “*convert the transmission to overlapped format*”, as disclosed in col. 8, lines 56-67); *the originating audio converter being close to the originating gateway or wherein the originating audio converter is in the same network as the originating gateway* (for example see figure 2; wherein the packetizer 90, e.g. “*originating audio converter*”, is within the sender, e.g. “*being close to the originating gateway*” or “*in the same network as the originating gateway*”).

Response to Amendment/Arguments

9. Applicant's arguments filed on February 27th, 2006 with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

10. Claim 6-7, 9-10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claim 36 is allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Many references in the art disclose the system and method for real time communication over packet networks with different suggesting transport protocol. Most of those references are comprising a processing hub, which includes the encoder and packetizer for encoding analog

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speech signal into digital speech frames and packetizing the frames into packet with redundant frames; and where the redundancy variable determines the number of the redundant frames in the packet due to the frames lost during transportation. But no prior art reference discloses, the overlapped audio frames are converted into non-overlapped audio format prior to being received at a terminating gateway.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (571) 272-3179.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300

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Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tri H. Phan
June 2, 2006



CHI PHAM
DEPUTY PATENT EXAMINER
6/5/06